TABLE OF CONTENTS

INTRODUCTION to the HD35L SERIES 2

I. SAFETY INFORMATION 3
- *Section 1.01:* Important Safety Notice..... 3
- *Section 1.02:* Important Safety Instructions..... 5

II. SYSTEM FEATURES & SPECIFICATIONS 9
- *Section 2.01:* Features..... 9
- *Section 2.02:* Dimensions & Technical Specifications..... 10
- *Section 2.03:* Machine Overview..... 11

III. OPERATING PROCEDURES 12
- *Section 3.01:* Suggested Additional Tools..... 12
- *Section 3.02:* First Time Operation & Technical Support..... 13
- *Section 3.03:* **FX-HD35L** Operating Instructions.....14
- *Section 3.04:* **MFX-HD35L** Operating Instructions.....17
- *Section 3.05:* **FXD-HD35L** Operating Instructions..... 21

IV. HOSES & ADAPTERS 25
- *Section 4.01:* Adapter Hoses..... 25
- *Section 4.02:* Adapters.....29

V. TROUBLESHOOTING & MAINTENANCE 30

VI. ORDERING REPLACEMENT PARTS 31

LIMITED WARRANTY 35

INTRODUCTION
to the **EETF303B, EETF304B & EETF306A**

Congratulations on the purchase of your Snap-on HD35L fluid exchanging machine!

Simply put, this machine is the cleanest, safest, easiest, fastest, most thorough, and most cost-efficient method of fluid exchange ever devised. Suddenly, regular automatic transmission and power steering maintenance become a more realistic proposition. Transmission and power steering fluid exchanging are cleaner and neater than ever!

Transmission Fluid Exchange:
To attain the highest level of protection for internal transmission components and increase the transmission's life span to the maximum, it is recommended that the transmission's lubrication system is serviced every 15,000 miles (or according to the vehicle owner's manual). The Snap-on HD35L SERIES exchanges virtually all of the used transmission fluid to new, without even requiring the transmission pan to be dropped. There is no spillage, and no mess.

Power Steering Fluid Exchange (EETF304B Only):
Service neglect leads to power steering system complaints including poor handling, hard or sluggish steering, and objectionable noise. Historically, power steering system fluid service has been neglected, often due to the lack of a convenient method for providing such flush or fluid exchange services. Previous methods for flushing the power steering system or replacing the power steering fluid were time consuming and often inefficient or incomplete. Now, it's easier than ever to replace up to 95% of the old power steering fluid in less than 8 minutes, to ensure your power steering system has a long, trouble-free life.

- **The HD35L can be used practically anywhere – and with almost any vehicle.**
- **It is compact, mobile, and self-contained.**
- **It operates off the 12-volt battery of the vehicle being serviced.**
- **It does not require a pit, lift, or ramp.**
- **The HD35L hooks up directly to one of the vehicle's transmission cooler lines for a transmission fluid exchange.**
- **The ATF fluid exchange, from setup to finish, typically takes 15 minutes or less!**

No wonder an ATF exchange is the most requested method of preventative automatic transmission maintenance today. Now there's the option of a power steering fluid exchange as well… Both in one machine!

Please take time to read through this manual to familiarize yourself with the HD35L before performing your first ATF or PSX exchange.

I. SAFETY INFORMATION

1.01 IMPORTANT SAFETY NOTICE

For your safety, read this manual thoroughly before operating your HD35L unit. Your HD35L unit is intended for use by properly trained, skilled professional automotive technicians. The safety messages presented below and throughout this user's manual are reminders to the operator to exercise care when using this unit. Before using your HD35L unit, always refer to and follow the safety messages and applicable service procedures provided by the manufacturer of the vehicle being serviced.

• Read All Safety Instructions

Read, understand and follow all safety messages and instructions in this manual. Safety messages in this section of the manual contain a signal word with a three-part message and, in some instances, an icon.

• Signal Words

The signal word indicates the level of the hazard in a situation:

⚠ DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury to the operator or to bystanders.

⚠ WARNING

Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury to the operator or to bystanders.

⚠ CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in moderate or minor injury to the operator or to bystanders.

IMPORTANT

Indicates a situation which, if not avoided, may result in damage to the HD35L or the vehicle being serviced.

• Safety Messages

Safety messages in this section contain three different type styles:

- Normal type states the hazard.
- **Bold type** states how to avoid the hazard.
- *Italic type* states the possible consequences of not avoiding the hazard.

• Safety Symbols

A safety symbol, when present, gives a graphical description of the potential hazard, and how to avoid the hazard:

Risk of Fire

Risk of Explosion

Risk of Entanglement

Dangerous Fumes

Do Not Pull or Move

Read Instructions Before Use

Mandatory Eye Protection

Mandatory Protective Gloves

Mandatory Protective Clothing

1.02 IMPORTANT SAFETY INSTRUCTIONS

⚠ DANGER

Engine exhaust contains toxic gases.
• Vent vehicle's exhaust away from work area.
• Do not breathe exhaust.
Exhaust gases will cause injury or death.

⚠ WARNING

Improper use and operation.
• Read, understand and follow all safety messages and operational procedures in this manual before operating the Snap-on HD35L.
• This equipment should be operated only by qualified personnel.
• Use this equipment only as described in this manual.
Improper use and operation of this product can result in injury.

⚠ WARNING

Engine systems can malfunction expelling fuel, oil vapors, hot steam, hot toxic exhaust gases and other debris.
• Wear safety goggles and protective clothing, user and bystander.
Engine systems that fail can cause serious injury.

⚠ WARNING

Risk of expelling pressurized fluids.
• Wear safety goggles and protective clothing, user and bystander.
• Verify that engine and machine are off before connecting or disconnecting cooler lines and adapter hoses.
• Always unplug the machine from its power source when not in use.
• Keep the service hoses away from hot or moving engine parts. Hoses can split or burst causing fluid to be expelled.
• Tighten all connections properly. Insufficient or excessive torque can result in fluid leakage.
• Avoid contact with automatic transmission or power steering fluid.
• Treatment methods are as follows:
Eyes: Flush eyes with plenty of water.
Skin: Wash with soap and water.

Inhalation: Move to uncontaminated area.
Ingestion: If large amount, get medical attention.
If any irritation persists, get medical attention.

• Dispose of used fluid according to environmental laws and regulations.

Although automatic transmission and power steering fluid pose no significant health hazards, some individuals may experience adverse reactions upon contact. Pressurized fluid can cause serious injury.

⚠ WARNING

Risk of unexpected vehicle movement.

• Block drive wheels before starting vehicle's engine to begin an exchange.
• Unless instructed otherwise, set parking brake and put gear selector in park.
• Do not leave a running vehicle unattended.

A moving vehicle can cause injury.

⚠ WARNING

Engine has moving parts. Risk of entanglement.

• Do not place tools on fenders or other places in engine compartment.
• Keep yourself, clothing, battery cables and service hoses clear of moving parts such as fan blades, belts and pulleys.

Contact with moving parts can cause injury.

⚠ WARNING

Risk of fire or explosion.

• Do not operate the HD35L in the vicinity of open containers of flammable liquids such as gasoline.
• Keep hoses and jumper cables away from heat sources and sharp edges.
• Do not operate equipment with damaged cords or hoses until they have been examined by a qualified serviceman.

Fire or explosion can cause injury.

⚠ WARNING

Risk of fire or explosion. Gases produced by a battery are highly explosive.

• Wear safety goggles and protective clothing, user and bystander.
• This machine is equipped to operate on 12-volt DC power only. A power source greater than this can result in serious injury to the user as well as damage to the machine.
• Do not smoke, place metal tools on battery or allow a spark or flame in vicinity of battery.
• Clean battery terminals before hooking the machine's battery clips to them. During cleaning, keep airborne corrosion from eyes, nose and mouth.

• Be sure both battery cables are tightly connected to the battery terminals as instructed before proceeding with a fluid exchange.
• Never remove battery cables from the battery terminals while the machine is operating. Only use the "EMERGENCY STOP" button located on the control panel to stop an exchange.
Battery explosion can cause injury.

⚠ WARNING

Battery acid is a highly corrosive sulfuric acid.
• Wear safety goggles and protective gloves, user and bystander.
• Have plenty of fresh water and soap nearby. If battery acid contacts skin, clothing, or eyes, flush exposed area with soap and water for 10 minutes.
• While cleaning battery's terminals, keep airborne corrosion from eyes, nose and mouth.
• Do not touch eyes while working near battery.
Battery acid can burn eyes and skin.

⚠ WARNING

Risk of burns.
• Wear gloves when working near hot engine components.
• Do not touch hot exhaust systems, manifolds, engines, radiators, etc.
• The automatic transmission fluid coming from the vehicle along with some of the machine's components that the fluid comes into direct contact with (i.e. external: hoses and quick-disconnect fittings; internal: hoses and all fittings) may reach temperatures uncomfortable to the touch. Exercise caution in avoiding contact with these items.
Hot components can cause injury or discomfort.

⚠ CAUTION

Ratchet mechanisms and tools may slip or break if dirty. Mismatched or partially worn parts can cause ratchet or any tool to slip or break.
• Frequently inspect and clean any tools used, and lubricate all non-sealed ratchet mechanisms with light oil.
• Do not replace worn parts individually. If adapter hose fittings become worn, see "Ordering Replacement Parts" to order new hoses.
• The use of any other accessories not specified in this manual may create a hazard.
Tools that slip or break can cause injury.

⚠ CAUTION

Risk of injury.

• This equipment should be operated by qualified personnel only.
• Use this equipment only as described in this manual.
• Always unplug the machine from its power source when not in use.
• Loop the power cord loosely in its proper location when machine is not in use.
• Do not operate equipment with a damaged battery cables or hoses, or if the equipment has been dropped or damaged, until it has been examined by a qualified service representative.
• Care should be taken to arrange the battery cables and service hoses so that they will not be tripped over or pulled.
• Never pull on the power cables or service hoses to transport the HD35L. Damage may occur to these components, or machine may tip over.
• Keep area of operation clear of unnecessary tools and equipment. Utilize recessed tool storage areas on the top of the machine.
• Never leave the machine running unattended.
• The HD35L is not designed for any other purpose than the exchanging of automatic transmission and power steering fluid.
Operation of your HD35L unit by anyone other than qualified personnel may result in injury.

IMPORTANT

Risk of equipment damage.

• Flushing high mileage cars that have not been previously serviced can cause operating problems in the transmission.
• Connect battery cables to a 12-volt power source only (i.e. vehicle's battery).
• Servicing, transporting, or storing this machine in an attitude other than the normal operating position can result in fluid spillage and/or component damage.
• Use only the manufacturer's recommended attachments.
• The Snap-on HD35L is fully automatic. Refer to your control panel at all times.
• Never pull on the power cables or service hoses to transport the HD35L. Damage may occur to these components, or machine may tip over.
• Periodically clean the machine by wiping down with a clean, soft, dry cloth.
Improper operation of equipment may result in damage to machine or components.

SAVE AND FOLLOW THESE INSTRUCTIONS!

II. SYSTEM FEATURES & SPECIFICATIONS

2.01 FEATURES

Mechanical Features

- Accurate sensor technology allows optimum fluid level to be maintained in vehicle's transmission.
- Two in-line 22-micron absolute fluid filters capture microscopic particles and contaminants.
- Numbered quick-disconnect hoses with adapters save time in identifying the proper hoses for the application
- Easy to use adapters allow quick hookup to virtually any automobile make and model, saving time and money.
- Clear service hoses give visual confirmation of new and used fluid movements.
- Ergonomically correct working height means greater productivity, less stress and strain.
- Durable roto-cast polyethylene body and tanks prevent vehicle damage. The unit is also lightweight and durable, for easier handling and longer life.
- Large 5-inch locking caster wheels make machine easy to maneuver.
- Easy-access service panel provides hassle-free operations for greater efficiency.

Electronic Features

- Self-contained battery cables hook up to the vehicle's 12-volt battery
- Automatic monitoring of fluid in new and used fluid tanks assures safe operation
- Accurate sensor technology
- LCD counter display with cumulative ATF options
- Ability to exchange anywhere from 1 to 35 quarts in 1 quart intervals
- Drain used fluid tank (no need to tip machine upside-down)
- Drain new fluid tank
- Ability to pause machine during exchange to change transmission filter
- Battery backup allows machine to resume where it left off should it lose power
- Add new fluid to transmission in 2/10 quart increments (approx. 1/8" on the dipstick)
- Remove fluid from transmission in 2/10 quart increments (approx. 1/8" on the dipstick)
- Cycle valves feature allows you to electronically clean out valves
- Totalizer check (indicates lifetime use)
- Interactive menu:
  - "Auto Prime" feature automatically primes the system
  - Indicate new fluid volume
  - Indicate used fluid capacity
  - Read battery voltage

Power Steering Fluid Exchange Unit *(EETF304B Only)*

- Remote pendant for ease of operation
- Compartment for new fluid bottle
- Drains directly to waste tank

2.02 DIMENSIONS & TECHNICAL SPECIFICATIONS

DIMENSIONS:

39 1/2" Tall
23" Wide
25 1/2" Deep

Service Hoses:
10’ outside of machine

Wheels:
5” locking casters (front)
5” casters (back)

Fluid Tanks:
40-Quart New Fluid Tank
40-Quart Used Fluid Tank

Weight:
135 lbs.

TECHNICAL SPECIFICATIONS:

Power:
12-Volt DC from vehicle battery

Fluid Sensors:
Accurate sensor technology

Filters:
22-micron absolute fluid filters

Operating Temperature:
65º to 150ºF (15º to 65ºC)

2.03 MACHINE OVERVIEW

EETF303B & EETF306A
Dipstick Manifold
(EETF306A Only)
Used when performing a dipstick exchange.
Control Panel
The HD35L is fully automatic. Refer to your control panel at all times.
Grey Service Hose
(EETF306A Only)
Carries waste fluid from the vehicle's dipstick tube to the machine.
Canister Filters
Protect the machine's components & vehicle's transmission. Placed for easy access.
Red Service Hose
Carries new ATF fluid from the machine to the vehicle being serviced. Also used to drain fluid tanks.
Battery Cables
Connect directly to the vehicle's battery to power the machine.
Black Service Hose
Carries used ATF fluid from the vehicle being serviced to the machine.
Used Fluid Reservoir
Holds up to 40 quarts of used ATF or power steering fluid.
EETF304B
New PSX Fluid Bottle
(EETF304B Only)
Holds new power steering fluid for PSX exchange.
PSX Dock Magnet
(EETF304B Only)
Allows pendant assembly to dock on the control panel. Also conveniently holds PSX service hoses out of the way while performing a power steering fluid exchange.
Pendant Assembly
(EETF304B Only)
Remote control for easy PSX operation.
Red PSX Service Hose
(EETF304B Only)
Carries new power steering fluid from the machine to the vehicle being serviced.
Black PSX Service Hose
(EETF304B Only)
Carries used power steering fluid from the vehicle being serviced to the machine.
Flow Diverter Valve
Allows user to switch hoses without disconnecting them from the vehicle.
Service Door
Removes for easy access to internal parts.
5" Locking Caster Wheels
Allow easy transport of the HD35L, while preventing unwanted rolling on non-level surfaces.

III. OPERATING PROCEDURES

3.01 SUGGESTED ADDITIONAL TOOLS

⚠ CAUTION

• Frequently inspect and clean any tools used, and lubricate all non-sealed ratchet mechanisms with light oil.
• The use of any other accessories not specified in this manual may create a hazard.
• Read, understand and follow Safety Instructions in the front pages of this manual and on product safety labels.

Line Wrenches
3/8”
7/16”
1/2”
9/16”
5/8”
11/16”
3/4"

End Wrenches
3/8”
7/16”
1/2"
9/16”
5/8”
11/16”
3/4”

Hex Wrenches
1/8”
11/16”

Nut Drivers (American)
3/16”
1/4”
5/16”
3/8”
7/16”

Nut Drivers (Metric)
6 mm
8 mm
9 mm
10 mm
11 mm
12 mm
13 mm
14 mm

Filter Band Clamp
For replacing canister filters

Metric End or Line Wrenches
10 mm
11 mm
12 mm
13 mm
14 mm
15 mm
16 mm
17 mm
18 mm
19 mm
20 mm

Screwdrivers

Phillips	***Standard***
1 long	*1 long*
1 short	*1 short*

IMPORTANT

Turn vehicle's A/C system OFF before starting an exchange.
New transmission fluid MUST be 65°F or above for optimal performance.

FIRST TIME OPERATION *(Priming the System)*

(Only necessary when machine is received, before first operation.)
System must be primed before first use.

1. Connect machine to battery
2. Make sure fluid is in new fluid tank
3. Connect the red and black service hoses together using the adapters
4. Press 0
5. Press 5
6. Press START

TECHNICAL SUPPORT

If you experience any problems or have any questions, call technical support at:
1-800-225-5786 (U.S.)
1-800-661-1786 (Canada)

Snap-on

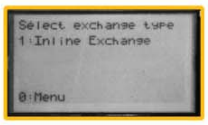
FX-HD35L
Quick Start Instructions

INLINE TRANSMISSION
FLUID EXCHANGER

INLINE Exchange

CONNECTION

Connect battery cables to vehicle's battery.



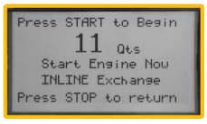
Press 1 for **Inline Exchange**

OPERATION

Connect appropriate adapters to vehicle's cooler line fittings.

Connect red and black service hoses to quick disconnect adapters on the end of the cooler line adapters.

Use the arrow keys ▲ ▼ to select the desired amount to be exchanged. Press ENTER START RESUME to proceed. Turn vehicle's **engine on**. Press ENTER START RESUME to begin the exchange.

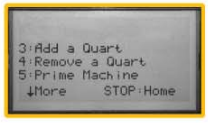


Once exchange is finished the screen will beep and display "***Complete***".

ADDITIONAL FEATURES

If needed, while running, pressing STOP PAUSE once will pause the machine. Press ENTER START RESUME to resume from pause, or press STOP PAUSE a second time to cancel the exchange

Check the fluid level. Press + ADD or − REMOVE to add or remove fluid in 2/10 of a quart increments. Use **option 3** in the main menu to add a full quart and **option 4** to remove a full quart.



Press 0 to return to the main menu.

942084

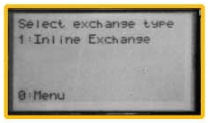
Snap-on

FX-HD35L
Additional Functions

INLINE TRANSMISSION
FLUID EXCHANGER

MAIN MENU

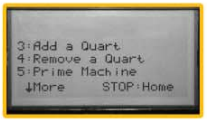
Connect battery cables to vehicle's battery.

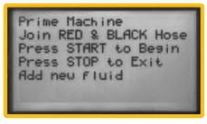


Press 0 for **Main Menu**

PRIMING THE MACHINE

Make sure there is fluid in the New Fluid Tank. Connect the Red and Black service hoses together using any two mating adapters.





Press 5 JKL. Press ENTER START RESUME to begin the process.

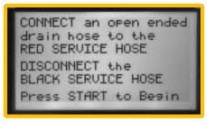
The unit will shut off when complete.

DRAINING THE TANKS

Connect any open end adapter to **red hose** and insert into appropriate disposal container. **Pull diverter valve knob OUT.**

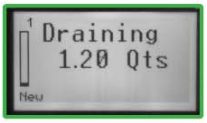
Make sure all other hoses are disconnected!

From the Main Menu, press ▼ to proceed to the next menu.



Press 6 MNO to drain the **New Fluid Tank**. Press 7 PQRS to drain the **Used Fluid Tank**. Press ENTER START RESUME to begin the process.

The unit will shut off when complete.



VOLTAGE MONITOR

From the Main Menu, press ▼ to proceed to the next menu.

Press 8 TUV to display the voltage.

942084

Snap-on

FX-HD35L
Additional Functions

INLINE TRANSMISSION
FLUID EXCHANGER

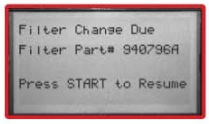
HALTED: *REVERSE HOSES*

If the exchange stops and the display reads "**Reverse Hoses**", push or pull the knob on the flow diverter valve to switch directions, and press ENTER START RESUME.

HALTED: *SHIFT TO NEUTRAL*

If the exchange stops and the display reads "**Shift to Neutral**", set the vehicle's parking brake, shift to Neutral, and press ENTER START RESUME.

FILTER CHANGE DUE



The machine will indicate when the canister filters need to be replaced. Use a standard filter band clamp tool to unscrew old filters, and replace them with new filters. Make sure new filters are on tight.

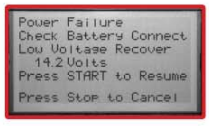
IMPORTANT: Machine must be primed after filter change.

TOTAL FILTER USE

From the Main Menu, press ▼ twice.

Press 3 DEF to display the total filter use. Press 2 ABC to reset.

POWER FAILURE MEMORY



If there is a power failure during a transmission fluid exchange, the procedure can be continuted seamlessly.

Simply reconnect the battery cables, and press ENTER START RESUME.

The exchange will resume where it left off.

CYCLE VALVES

From the Main Menu, press ▼ to proceed to the next menu.

Press 9 WXYZ to cycle the valves.

942084

Snap-on

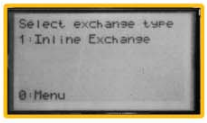
MFX-HD35L
Quick Start Instructions

INLINE TRANSMISSION
& POWER STEERING
FLUID EXCHANGER

INLINE Exchange

CONNECTION

Connect battery cables to vehicle's battery.



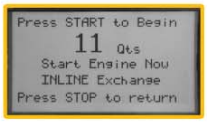
Press [1] for **Inline Exchange**

OPERATION

Connect appropriate adapters to vehicle's cooler line fittings.

Connect red and black service hoses to quick disconnect adapters on the end of the cooler line adapters.

Use the arrow keys [▲] [▼] to select the desired amount to be exchanged. Press [ENTER START RESUME] to proceed. Turn vehicle's **engine on**. Press [ENTER START RESUME] to begin the exchange.

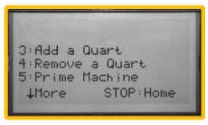


Once exchange is finished the screen will beep and display "***Complete***".

ADDITIONAL FEATURES

If needed, while running, pressing [STOP PAUSE] once will pause the machine. Press [ENTER START RESUME] to resume from pause, or press [STOP PAUSE] a second time to cancel the exchange

Check the fluid level. Press [+ ADD] or [− REMOVE] to add or remove fluid in 2/10 of a quart increments. Use **option 3** in the main menu to add a full quart and **option 4** to remove a full quart.



Press [0] to return to the main menu.

942083

Snap-on

MFX-HD35L
Quick Start Instructions

INLINE TRANSMISSION & POWER STEERING FLUID EXCHANGER

POWER STEERING Exchange

CONNECTION

Connect battery cables to vehicle's battery.

Press 0 for **Main Menu.**

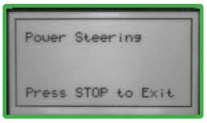
Press ▼ twice.

Press 4 GHI for **Power Steering** mode

OPERATION

Connect the left side red & black service hoses to the PSX tube assembly.

With the vehicle's engine running, insert tube 3/4 of the way into power steering fluid reservoir. Turn the ball valves to the "on" position on both hoses.



While watching the fluid level in the reservoir, use the "DRAIN" and "FILL" buttons on the remote pendant to repeatedly drain and add fluid. Repeated purging and adding of fluid will flush the old fluid out of the reservoir.

Turn the vehicle's steering wheel all the way to the left, then all the way to the right, and back to center. Check the color of the fluid in the reservoir to ensure a clean exchange. Repeat if necessary.

When finished, adjust fluid level, turn the ball valves to the "off" position on both hoses, and remove hoses from power steering fluid reservoir.

Turn off vehicle's engine, and replace reservoir cap.

942083

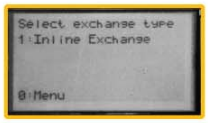
Snap-on

MFX-HD35L
Additional Functions

INLINE TRANSMISSION
& POWER STEERING
FLUID EXCHANGER

MAIN MENU

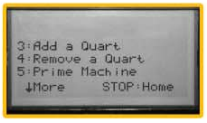
Connect battery cables to vehicle's battery.

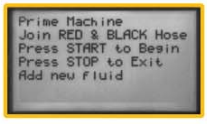


Press 0 for **Main Menu**

PRIMING THE MACHINE

Make sure there is fluid in the New Fluid Tank. Connect the Red and Black service hoses together using any two mating adapters.





Press 5 JKL. Press ENTER START RESUME to begin the process.

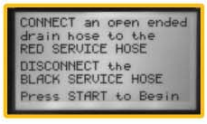
The unit will shut off when complete.

DRAINING THE TANKS

Connect any open end adapter to **red hose** and insert into appropriate disposal container. **Pull diverter valve knob OUT.**

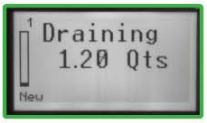
Make sure all other hoses are disconnected!

From the Main Menu, press ▼ to proceed to the next menu.



Press 6 MNO to drain the **New Fluid Tank**. Press 7 PQRS to drain the **Used Fluid Tank**. Press ENTER START RESUME to begin the process.

The unit will shut off when complete.



VOLTAGE MONITOR

From the Main Menu, press ▼ to proceed to the next menu.

Press 8 TUV to display the voltage.

942083

Snap-on

MFX-HD35L
Additional Functions

INLINE TRANSMISSION
& POWER STEERING
FLUID EXCHANGER

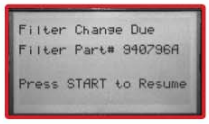
HALTED: *REVERSE HOSES*

If the exchange stops and the display reads "**Reverse Hoses**", push or pull the knob on the flow diverter valve to switch directions, and press ENTER START RESUME.

HALTED: *SHIFT TO NEUTRAL*

If the exchange stops and the display reads "**Shift to Neutral**", set the vehicle's parking brake, shift to Neutral, and press ENTER START RESUME.

FILTER CHANGE DUE



The machine will indicate when the canister filters need to be replaced. Use a standard filter band clamp tool to unscrew old filters, and replace them with new filters. Make sure new filters are on tight.

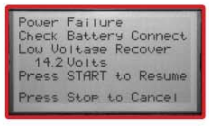
IMPORTANT: Machine must be primed after filter change.

TOTAL FILTER USE

From the Main Menu, press ▼ twice.

Press 3 DEF to display the total filter use. Press 2 ABC to reset.

POWER FAILURE MEMORY



If there is a power failure during a transmission fluid exchange, the procedure can be continuted seamlessly.

Simply reconnect the battery cables, and press ENTER START RESUME.

The exchange will resume where it left off.

CYCLE VALVES

From the Main Menu, press ▼ to proceed to the next menu.

Press 9 WXYZ to cycle the valves.

942083

Snap-on

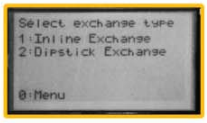
FXD-HD35L
Quick Start Instructions

INLINE or DIPSTICK
TRANSMISSION FLUID
EXCHANGER

INLINE Exchange

CONNECTION

Connect battery cables to vehicle's battery.



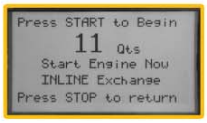
Press 1 for **Inline Exchange**

OPERATION

Connect appropriate adapters to vehicle's cooler line fittings.

Connect red and black service hoses to quick disconnect adapters on the end of the cooler line adapters.

Use the arrow keys ▲ ▼ to select the desired amount to be exchanged. Press ENTER START RESUME to proceed. Turn vehicle's **engine on**. Press ENTER START RESUME to begin the exchange.



Once exchange is finished the screen will beep and display "***Complete***".

ADDITIONAL FEATURES

If needed, while running, pressing STOP PAUSE once will pause the machine. Press ENTER START RESUME to resume from pause, or press STOP PAUSE a second time to cancel the exchange

Check the fluid level. Press + ADD or − REMOVE to add or remove fluid in 2/10 of a quart increments. Use **option 3** in the main menu to add a full quart and **option 4** to remove a full quart.

Press 0 to return to the main menu.

942082

Snap-on

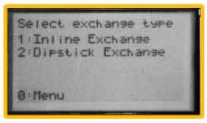
FXD-HD35L
Quick Start Instructions

INLINE or DIPSTICK TRANSMISSION FLUID EXCHANGER

DIPSTICK Exchange

CONNECTION

Connect battery cables to vehicle's battery.



Press 2 ABC for **Dipstick Exchange**

OPERATION

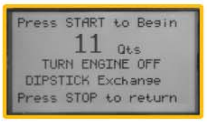
Connect red and gray service hoses to chrome manifold.

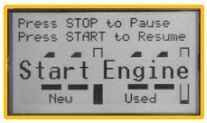
Insert nylon tube down dipstick tube the same length as the dipstick, being cautious not to insert too far.

IMPORTANT: Pull diverter valve knob OUT.

With the **engine off**, use the arrow keys ▲ ▼ to select the desired amount to be exchanged.

Press ENTER START RESUME to proceed. Press ENTER START RESUME again to begin exchange.



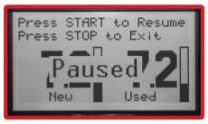


Start the vehicle's engine when display prompts you to do so.

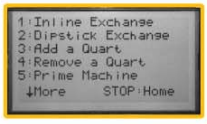
Press ENTER START RESUME. Once exchange is finished the screen will beep and display "***Complete***".

ADDITIONAL FEATURES

If needed, while running, pressing STOP PAUSE once will pause the machine. Press ENTER START RESUME to resume from pause, or press STOP PAUSE a second time to cancel the exchange



Check the fluid level. Press + ADD or − REMOVE to add or remove fluid in 2/10 of a quart increments. Use **option 3** in the main menu to add a full quart and **option 4** to remove a full quart.



Press 0 to return to the main menu.

942082

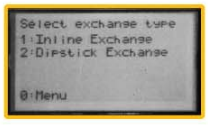
Snap-on

FXD-HD35L
Additional Functions

INLINE or DIPSTICK
TRANSMISSION FLUID
EXCHANGER

MAIN MENU

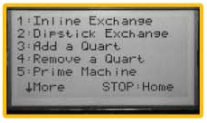
Connect battery cables to vehicle's battery.

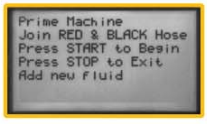


Press 0 for **Main Menu**

PRIMING THE MACHINE

Make sure there is fluid in the New Fluid Tank. Connect the Red and Black service hoses together using any two mating adapters.





Press 5 JKL. Press ENTER START RESUME to begin the process.

The unit will shut off when complete.

DRAINING THE TANKS

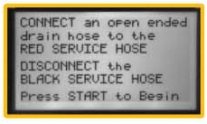
Connect any open end adapter to **red hose** and insert into appropriate disposal container. **Pull diverter valve knob OUT.**

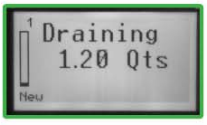
Make sure all other hoses are disconnected!

From the Main Menu, press ▼ to proceed to the next menu.

Press 6 MNO to drain the **New Fluid Tank**. Press 7 PQRS to drain the **Used Fluid Tank**. Press ENTER START RESUME to begin the process.

The unit will shut off when complete.





VOLTAGE MONITOR

From the Main Menu, press ▼ to proceed to the next menu.

Press 8 TUV to display the voltage.

942082

Snap-on

FXD-HD35L
Additional Functions

INLINE or DIPSTICK
TRANSMISSION FLUID
EXCHANGER

HALTED: *REVERSE HOSES*

If the exchange stops and the display reads "**Reverse Hoses**", push or pull the knob on the flow diverter valve to switch directions,

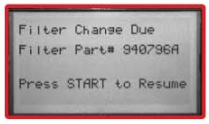
and press ENTER START RESUME.

HALTED: *SHIFT TO NEUTRAL*

If the exchange stops and the display reads "**Shift to Neutral**",

set the vehicle's parking brake, shift to Neutral, and press ENTER START RESUME.

FILTER CHANGE DUE



The machine will indicate when the canister filters need to be replaced. Use a standard filter band clamp tool to unscrew old filters, and replace them with new filters. Make sure new filters are on tight.

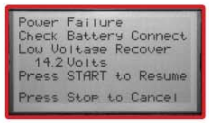
IMPORTANT: Machine must be primed after filter change.

TOTAL FILTER USE

From the Main Menu, press ▼ twice.

Press 3 DEF to display the total filter use. Press 2 ABC to reset.

POWER FAILURE MEMORY



If there is a power failure during a transmission fluid exchange, the procedure can be continuted seamlessly.

Simply reconnect the battery cables, and press ENTER START RESUME.

The exchange will resume where it left off.

CYCLE VALVES

From the Main Menu, press ▼ to proceed to the next menu.

Press 9 WXYZ to cycle the valves.

942082

IV. HOSES & ADAPTERS

⚠ CAUTION

• Do not replace worn parts individually. If adapter hose fittings become worn, see "Ordering Replacement Parts" to order new hoses.
• The use of any other accessories not specified in this manual may create a hazard.
• Read, understand and follow Safety Instructions in the front pages of this manual and on product safety labels.

4.01 ADAPTER HOSES

STANDARD HOSES

-Green- 5/8"-18 [F]
941801- Hose #**51** SAE 45° Flare - Swivel
(Mates with #52) *(Chrysler - 1993 and Newer)*

-Green- 5/8"-18 [M]
941802- Hose #**52** SAE 45° Flare
(Mates with #51) *(Chrysler)*

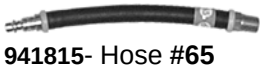
-Blue- 5/8"-18 [M]
941803- Hose #**53** SAE 45° Flare - Swivel
(Mates with #57) *(General Motors with 3/8" Tube Diameter Lines - All Years)*

-Black- 3/8" Diameter Hose [F]
941805- Hose #**55** Open End Hose w/Clamp
(Mates with Step Fitting) *(Import - 1987 and Newer)*

-Blue- 5/8"-18 [F]
941807- Hose #**57** SAE 45° Inverted
(Mates with #53) *(General Motors with 3/8" Tube Diameter Lines - 1997 and Newer)*

-Black- 1/2" Diameter Hose [F]
941809- Hose #**59** Open End Hose w/Clamp
(Mates with Step Fitting) *(Import)*

-Black- 5/16" Diameter Hose [F]
941813- Hose #**63** Open End Hose w/Clamp
(Mates with Step Fitting) *(Import)*



-Green- 1/4"-18 [M]
941815- Hose #**65** NPTF
(Mates with #75) *(Jeep Cherokee- 1980-1986)*

-Red- 1/2”-20 [F]
941816- Hose #**66** SAE 45° Inverted
(Mates with #67) *(Chrysler, Ford Aerostar, Jaguar, Mercedes,& Cadillac-1985 and Newer)* * Needs Ford Slide Tool 940140 for Aerostar / Windstar

-Red- 1/2”-20 [M]
941817- Hose #**67** SAE 45°
(Mates with #66) *(Chrysler and Ford)*

-Red- 5/8”-18 [M]
941818- Hose #**68** SAE Inverted - Swivel
(Mates with #69) *(Ford With Large Nut Adapter - 1980 and Newer)*

-Red- 5/8”-18 [F]
941819- Hose #**69** SAE Inverted
(Mates with #68) *(Ford)*

-Blue- 1/2”-20 [M]
941820- Hose #**70** SAE 90° Inverted - Swivel
(Mates with #71) *(General Motors with 5/16" Tube Diameter Lines - All Years)*

-Blue- 1/2”-20 [F]
941821- Hose #**71** SAE Inverted
(Mates with #70) *(General Motors & Ford Expedition)*

-Red- 1/2”-20 [F]
941822- Hose #**72** SAE Inverted
(Mates with #73) *(Ford)*

-Red- 1/2”-20 [M]
941823- Hose #**73** SAE 90° Inverted - Swivel
(Mates with #72) *(Ford 5/16" Small / Long Nut Adapter - 1980 and Newer)*

-Green- M14 x 1.5 [F]
941825- Hose #**75** Swivel O-ring
(Mates with #65) *(Jeep Cherokee, Ford Escort - 1980-1986)*

-Red- M14 [F]
940874- Hose #**78** Banjo Fitting
(Mates with #79) *(Ford Escort – 1994 and Newer)*

-Red- M14 x 1.5 [M]
940875- Hose #**79** Bolt w/ 2 Washers
(Mates with #78) *(Ford Escort - 1994 and Newer)*

-Black- 1/4” [M]
941828- Hose #**80** Universal Bump Fitting
(Mates with #81) *(Import)*

-Black- 1/4” Diameter Hose [F]
941829- Hose #**81** Open End Hose w/Clamp
(Mates with #80) *(Import)*

-Black- 5/16” [M]
941830- Hose #**82** Universal Bump Fitting
(Mates with #63) *(Infiniti, Lexus, and BMW - 1980 and Newer)*

-Black- 3/8” [M]
941831- Hose #**83** Universal Bump Fitting
(Mates with #55) *(Toyota, Nissan, Honda, Ford and Chrysler - 1975 and Newer)*

-Black- 1/2” [M]
941832- Hose #**84** Universal Bump Fitting
(Mates with #59) *(Toyota, Nissan and Honda - 1980 and Newer)*

-Green- 9/16”-18 [M]
941835- Hose #**87** JIC 37° Flare - Inverted
(Mates with #88) *(Dodge Durango/Dakota - All Years)*

-Green- 9/16”-18 [F]
941836- Hose #**88** JIC 37° Flare - Swivel
(Mates with #87) *(Dodge Durango/Dakota - All Years)*

-Black- 3/4”-16 [M]
941841- Hose #**89** SAE O-Ring
(Mates with #90) *(Chevy DuraMax w/Allison Transmission – 2001 & Newer)*

-Black- 3/4”-16 [F]
941842- Hose #**90** SAE O-Ring Adapter
(Mates with #89) *(Chevy DuraMax w/Allison Transmission – 2001 & Newer)*

-Red- 5/8-18 [M]
941080- Hose #**93** *(Ford Focus / Mercury Mystique)*
(Mates with #94)

-Red- 5/8-18 [F]
941081- Hose #**94** *(Ford Focus / Mercury Mystique)*
(Mates with #93)

-Yellow- 3/4”-18 [M]
940388- Hose #**124** 90° Inverted SAE 45° - Swivel
(Mates with #142) *(Ford Torqshift / 250SD / 550SD / Econoline / Excursion)*

-Yellow- 3/4”-18 [F]
940389- Hose #**142** Inverted SAE 45° Rigid - Straight
(Mates with #124) *(Ford Torqshift / 250SD / 550SD / Econoline / Excursion)*

-Yellow- 5/8” Diameter Hose [F]
941900- Hose #**149** Open End Hose w/Clamp
(Mates with 5/8” Adapter) *(Chevy DuraMax w/Allison Transmission - 2003 & Newer)*

941178
(EETF304B Only)

1/2” Diameter PSX Y-Adapter
(All Vehicles)

ALLISON HOSES (Optional)

941844- Hose **#134**
(Mates with #135)

-Yellow- **#16 PTT Thread**
[Male]

941845- Hose **#135**
(Mates with #134)

-Yellow- **#16 PTT 30° Swivel**
[Female]

941846- Hose **#136**
(Mates with #137)

-Yellow- **#12 SAE**
[Male]

941847- Hose **#137**
(Mates with #136)

-Yellow- **#12 SAE**
[Female]

941848- Hose **#138**
(Mates with #139)

-Yellow- **#16 JIC**
[Female]

941849- Hose **#139**
(Mates with #138)

-Yellow- **#16 JIC**
[Male]

941850- Hose **#140**
(Mates with #141)

-Yellow- **#10 JIC**
[Female]

941851- Hose **#141**
(Mates with #140)

-Yellow- **#10 JIC**
[Male]

941893- Fitting
(Mates with #143)

#12 ORFS
[Male]

941894- Hose **#143**
(Mates with 941893 Fitting)

-Yellow- **#12 ORFS**
[Female]

941895- Hose **#144**
(Mates with #145)

-Yellow- **#12 JIC**
[Male]

-Yellow- **#12 JIC Swivel** [Female]
941896- Hose **#145**
(Mates with #144)

-Yellow- **1 1/16-1 w/ O-Ring** [Female]
941897- Hose **#146**
(Mates with #147)

-Yellow- **1 1/16-1 Flat Face** [Male]
941898- Hose **#147**
(Mates with #146)

-Yellow- **#10 ORFS** [Female]
941903- Hose **#152**
(Mates with #153)

-Yellow- **#10 ORFS** [Male]
941904- Hose **#153**
(Mates with #152)

4.02 **ADAPTERS**

The following adapters allow quick and easy hookup to virtually any vehicle make and model.

940328
1/2” Adapter

942163S
GM Adapter

942162
Quick Disconnect Tool

941899
5/8” Duramax Adapter

940329
3/8” Adapter

940334
5/16” Adapter

940831
Master Hose Connector

941910
3/8” Ford Adapter

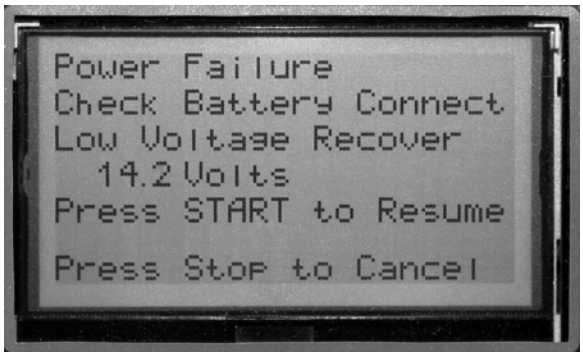
942169
5/8” Medium GM Adapter

941966
Slider Pin Adapter (Optional)

V. TROUBLESHOOTING & MAINTENANCE

COMMON PROBLEMS / SOLUTIONS

Problem: *"Power Failure" screen displays*

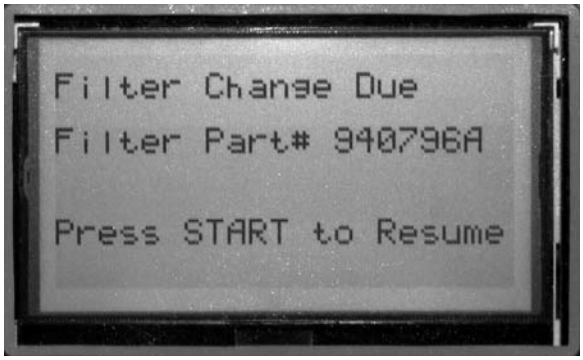


Solution 1: Check battery connection. Make sure there are no loose connections, and the machine's battery clips are not reversed. Remove all corrosion from the battery terminals. Make sure vehicle's A/C system is turned off.

Solution 2: The vehicle's battery is not putting out enough voltage to run the machine. Connect the machine to a better 12V power source. Stand-alone shelf batteries will not work.

MAINTENANCE PROCEDURES

• Replace Canister Filters *(Part#: 940796A)* **when machine prompts you to do so:**



Use a standard filter band clamp tool to unscrew old filters, and replace them with new filters. Make sure new filters are on tight.

• Clean Waste Fluid Screen (Located in bottom of recessed hose tray area)
This helps eliminate surface tension caused by debris and contamination from the air. Using a sharp pick, remove screen. Clean using degreaser and brush, and blow out with air compressor.

• Periodically Wipe Down Exterior using a soft, damp cloth.

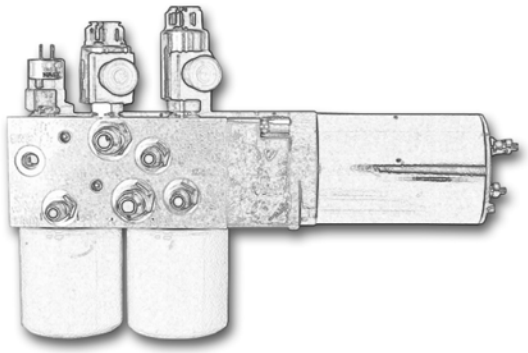
VI. ORDERING REPLACEMENT PARTS

REPLACEMENT PART LIST

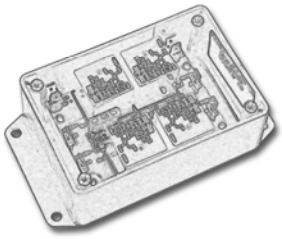
Part #	Description
NOR942089W	Control Panel w/ Elec. Board & Label *(EETF303B) [FX]*
NOR942090W	Control Panel w/ Elec. Board & Label *(EETF304B) [MFX]*
NOR942088W	Control Panel w/ Elec. Board & Label *(EETF306A) [FXD]*
NOR940304	Battery Cable Assembly
NOR941617W	Motor Control Box
NOR940469	Sensor Rod
NOR941613	27 1/2" Fluid Tube
NOR941226	Fluid Tube Elbow Fitting
NOR940551	PSX Fill Pump [*EETF304B Only]*
NOR940468W	Manifold/Pump Assembly
NOR940843	Pressure Switch *(Factory preset to 6 psi)*
NOR940839	3/2 Solenoid Valve *[Short] (S2)*
NOR940840	3/2 Solenoid Valve *[Tall] (S1)*
NOR940841	Coil with Spade Connector *[Short] (S2)*
NOR940842	Coil with Spade Connector *[Tall] (S1)*
NORR940775	Standard Hose Kit
NOR941168	Allison Hose Kit *(Optional)*
NORP940927	Hose Tray
NOR941220	Hose Rack
NORR940985	Internal Hose Kit *(EETF303B) [FX]*
NORR941171	Internal Hose Kit *(EETF304B) [MFX]*
NORR942094	Internal Hose Kit *(EETF306A) [FXD]*
NOR940831	Master Hose Connector
NOR940785	Service Hose Black
NOR940786	Service Hose Red
NOR940787	Service Hose Black *(PSX) [EETF304B Only]*
NOR940788	Service Hose Red *(PSX) [EETF304B Only]*
NOR940837	12" Tube w/ Air Nipple *(PSX) [EETF304B Only]*
NOR940834	Pendant Assembly *(PSX) [EETF304B Only]*
NORR940663	Pendant Switch *(PSX) [EETF304B Only]*
NOR940922	Dock Magnet Assembly *(PSX) [EETF304B Only]*
NOR940913	New Power Steering Fluid Bottle *[EETF304B Only]*
NOR941716W	Dipstick Manifold Assembly *[EETF306A Only]*
NOR941728	Gray Service Hose *[EETF306A Only]*
NOR941708	Dipstick Reducer *[EETF306A Only]*
NORR940557	5/16” x 6’ Poly Tube *[EETF306A Only]*

NOR942098	Chassis Red
NOR942097	Top Sink Red
NOR942099	Console Gray/Blk
NOR942113	Tank Cap
NOR942095	Red Tank - New Fluid
NOR942096	Red Tank - Waste Fluid
NOR942087	Service Panel Label
NORR942118	Locking Caster Wheel
NORR942137	Caster Wheel
NOR940905	Vinyl Mat
NOR940796A	Canister Filter
NORR942150	Used Fluid Screen *(1 1/4" Diameter)*
NOR942085	Operations Manual
NOR942084	Quick Start & Add'l Functions Bundle Set *(EETF303B) [FX]*
NOR942083	Quick Start & Add'l Functions Bundle Set *(EETF304B) [MFX]*
NOR942082	Quick Start & Add'l Functions Bundle Set *(EETF306A) [FXD]*
NOR942081	Additional Function Instructions *(EETF304B) [MFX]*
NOR942080	Quick Start Instructions *(EETF306A) [FXD]*
NOR942079	Additional Function Instructions *(EETF306A) [FXD]*
NOR940844	Adapter Instruction Sheet

REPLACEMENT PART ILLUSTRATIONS



NOR940468
Manifold / Pump Assembly

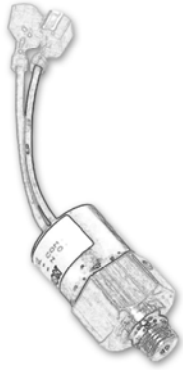


NOR941617W
Motor Control Board

NOR940469
Sensor Rod

NOR941613
27 1/2" Fluid Tube

NOR941226
Fluid Tube Elbow Fitting



NOR940843
Pressure Switch

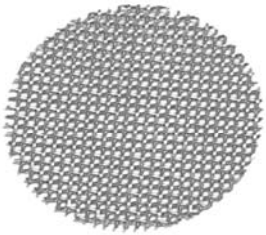
NOR940839
3/2 Solenoid Valve [Short] (S2)

NOR940840
3/2 Solenoid Valve [Tall] (S1)

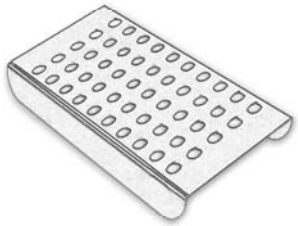
NOR940841 or NOR940842
Coil with Spade Connector Short (S2) or Tall (S1)

NOR940905
Vinyl Mat

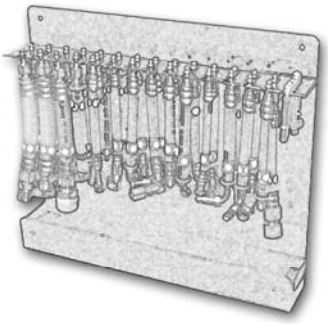
NOR940796A
Canister Filter



NORR942150
Used Fluid Screen



NORH940927
Hose Tray



NOR941220
Optional Hose Rack
(Hoses Not Included)

NORR942137
Caster

NORR942118
Locking Caster

ORDERING INFORMATION

To order replacement parts for the Snap-on HD35L SERIES, call:

1-800-225-5786 (U.S.)
1-800-661-1786 (Canada)

LIMITED ONE (1) YEAR WARRANTY

Snap-on EETF303B, EETF304B & EETF306A

Snap-on warrants only to the original Purchaser that under normal use, care and service, the Equipment (except as otherwise provided herein) shall be free from defects in material and workmanship for one year from the date of original invoice. External hoses, remote control modules, adapters and all other attachments, supplies and consumables (except as otherwise provided herein) are warranted for 90 calendar days from the date of original invoice. Filter elements are not warranted. Printed circuit boards purchased from, but not installed by Seller are not warranted.

SELLER'S OBLIGATIONS UNDER THIS WARRANTY ARE LIMITED SOLELY TO THE REPAIR OR, AT SELLER'S OPTION, REPLACEMENT OF EQUIPMENT OR PARTS WHICH TO SELLER'S SATISFACTION ARE DETERMINED TO BE DEFECTIVE AND WHICH ARE NECESSARY, IN SELLER'S JUDGEMENT, TO RETURN THE EQUIPMENT TO GOOD OPERATING CONDITION. NO OTHER WARRANTIES EXPRESS OR IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, SHALL APPLY AND ALL SUCH WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED.

This warranty does not cover (and separate charges for parts, labor and related expenses shall apply to) any damage to, malfunctioning, inoperability or improper operation of the Equipment caused by, resulting from or attributable to (A) abuse, misuse or tampering; (B) alteration, modification or adjustment of the Equipment by anyone other than Seller's authorized representatives; (D) improper or negligent use, application, operation, care, cleaning, storage or handling; (E) fire, water, wind, lightning or other natural causes; (F) adverse environmental conditions, including, without limitation, excessive heat, moisture, corrosive elements, or dust or other air contaminants, radio frequency interference, electric power failure, power line voltages beyond those specified for the equipment, unusual physical, electrical or electromagnetic stress, and/or any other condition outside of Seller's environmental specifications; (G) use of the Equipment in combination or connection with other equipment, attachments, supplies or consumables not manufactured or supplied by Seller; or (H) failure to comply with any applicable federal, state or local regulation.

Repairs or replacements qualifying under this Warranty will be performed on regular business days during Seller's normal working hours within a reasonable time following Purchaser's request. **All requests for Warranty service must be made during the stated Warranty period.** This warranty is non-transferable.